

### **REMARKS/ARGUMENTS**

The office action mailed May 20, 2004 has been carefully reviewed and these remarks are responsive to that office action. Reconsideration and allowance of this application are respectfully requested.

Claims 9-15 remain pending in this application. Claims 1-8, 17, and 19 have been withdrawn as being directed to a non-elected invention. Claims 16 and 18 are canceled without prejudice or disclaimer, and new claims 20-28 have been added.

#### **Claim Rejections – 35 USC § 112**

Claim 15 was rejected under 35 U.S.C. § 112, second paragraph, due to an antecedent-basis issue with respect to the recitation of “the microphone.” Claim 15 has been amended to depend upon claim 14 thereby overcoming this rejection.

#### **Claim Rejections – 35 USC § 102**

Claims 9-11, and 14-16 were rejected under 35 U.S.C. 102(b) as being anticipated by Sultan (5,843,142). The office action characterizes Sultan as showing a system comprising a signal generator (1); at least one implantable lead (11, 43, 41), coupled to the signal generator; a sensor (4), and a controller that adjusts at least one stimulation parameter in response to the signal from the sensor (Col. 7, lines 4-19).

Sultan does not support a proper prima facie case of anticipation of claim 9 because Sultan does not disclose a controller that performs speech-recognition processing to detect stuttering and that adjusts at least one stimulation parameter in response to detecting stuttering. Claim 9 is directed to a system for therapeutically treating stuttering in a patient comprising: a signal generator; at least one implantable lead, coupled to the signal generator, for delivering electrical stimulation to at least one predetermined site of the patient's brain; a sensor, located near the patient's vocal folds, for generating a signal responsive to activity of the patient's speech-producing muscles; a controller that performs speech-recognition processing on the signal from the sensor to detect stuttering and that adjusts at least one stimulation parameter in response to detecting stuttering.

Sultan discloses a system for inducing complex motor activities in a patient with a spinal cord injury based on the patient's verbal commands, so that the patient will be able to walk around and do their own physiotherapy independently. (Col. 6, lines 24-29). The office action states on page 3 that claim 1 of Sultan shows a controller that uses a speech-recognition algorithm. Claim 1 of Sultan includes a limitation directed to a sensor that detects a vocal command. Sultan does not, however, disclose a controller that performs speech-recognition processing to detect stuttering. Sultan also does not, therefore, disclose a controller that adjusts at least one stimulation parameter in response to detecting stuttering. For at least these reasons, Sultan does not support a proper prima facie case of anticipation of claim 9.

Claims 9 and 18 were rejected under 35 U.S.C. 102 (b) as being anticipated by Fischell et al. (6,128,538). The office action characterizes Fischell as showing a system comprising a signal generator (40), at least one implantable lead (17A-N, 15A-N) coupled to the signal generator, a sensor (30); and a controller that adjusts at least one stimulation parameter in response to the signal from the sensor. Claim 18 has been cancelled without prejudice or disclaimer.

Fischell does not support a proper prima facie case of anticipation of claim 9 because Fischell does not disclose a controller that performs speech-recognition processing to detect stuttering and that adjusts at least one stimulation parameter in response to detecting stuttering. Fischell discloses a system for treatment of certain neurological diseases such as epilepsy, migraine headaches and Parkinson's disease. When a neurological event, such as the onset of an epileptic seizure occurs, EEG signals from the implanted electrodes are processed by a control module, which then causes a response (e.g., neurostimulation) to be generated for stopping the neurological event. Fischell does not, however, disclose a controller that performs speech-recognition processing to detect stuttering. Sultan also does not, therefore, disclose a controller that adjusts at least one stimulation parameter in response to detecting stuttering. For at least the foregoing reasons, Fischell does not support a proper prima facie case of anticipation of claim 9.

As discussed above, neither Sultan nor Fischell supports a proper prima facie case of anticipation because neither of these references discloses a controller that performs speech-recognition processing to detect stuttering and that adjusts at least one stimulation parameter in

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response to detecting stuttering. Claim 9, therefore, contains patentable subject matter and is in condition for allowance.

Claim 20 contains limitations that are analogous to the limitations discussed above in connection with claim 9. Claim 20 is therefore in condition for allowance for at least reasons similar to those discussed above with respect to claim 9.

Claims 10-15 and 21-28 properly depend upon either of claims 9 and 20. Claims 10-15 and 21-28, therefore, contain patentable subject matter and are in condition for allowance for at least the reasons discussed above in connection with claims 9 and 20. These dependent claims are also believed to further distinguish over the references.

### CONCLUSION

If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

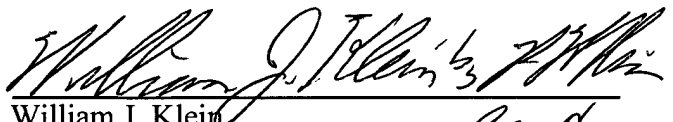
All rejections having been addressed, applicant respectfully submits that this application is in condition for allowance, and respectfully requests issuance of a notice of allowance.

Respectfully submitted,

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